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# United States Patent [19]

Wasserman et al.

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## [54] DENTAL INSERTS FOR TREATMENT OF PERIODONTAL DISEASE

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[58] Field of Search ..... 433/136, 215, 229; 128/899; 606/151, 154, 155, 156; 424/426, 435, 444

## [56] References Cited

## U.S. PATENT DOCUMENTS

- |           |        |                    |       |         |
|-----------|--------|--------------------|-------|---------|
| 3,054,406 | 9/1962 | Usher              | ..... | 606/151 |
| 4,428,375 | 1/1984 | Ellman             | ..... | 606/151 |
| 4,531,916 | 7/1985 | Scantlebury et al. | ..... | 433/173 |
| 4,755,184 | 7/1988 | Silverberg         | ..... | 623/16  |

## FOREIGN PATENT DOCUMENTS

- 1249957 1/1989 Canada .  
WO86/00517 1/1986 PCT Int'l Appl. .

## OTHER PUBLICATIONS

Bertrand et al., "Activites de recherches sur un matereau biodegradeable en paradontologie: la polyglactine

910", Rev. Odontostomatol (Paris), vol. 14(2), pp. 113-123 (1985).

Quarta et al., "Repair of the Vestibule of the Mouth Using Polyglactin Netting", translated from German, Zahnarztl. Prax. vol. 36, pp. 344-352 (1985).

Holtje, W., "Wiederherstellung von Orbitabodendefekten mit Polyglactin", Fortschr. Kiefer Gesichtschir., vol. 28, pp. 65-67 (1983).

Brekke, et al., "Influence of polylactic acid mesh on the incidence of localized osteitis", Oral Surg., vol. 56, pp. 240-245 (1983).

Magnusson, et al. "New Attachment Formation Following Controlled Tissue Regeneration Using Biodegradable Membranes", J. Periodontol., vol. 59, pp. 1-6 (1988).

Fleisher, et al., "Regeneration of Lost Attachment Apparatus in the Dog Using Vicryl Absorbable Mesh (Polyglactin 910)®" Inter. J. of Periodontics and Restorative Dentistry, pp. 45-56 (1988).

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## [57] ABSTRACT

An absorbable mesh material useful as a dental implant. The mesh is cut by lasers to afford smooth edges which will not unravel. The implant may be attached by a ligature or suture material, generally formed from the same material as the implant, and attached to the implant by, among other things, laser or ultrasonic welding or interweaving.

8 Claims, 1 Drawing Sheet

